Application No. 10/586,971 Docket No.: 046884-5501-00-US-229377 Amendment dated December 14, 2010

Reply to Office Action of June 18, 2010

IN THE CLAIMS:

Please amend the claims of the instant application so that the claims now read as follows.

Claim 1 (Currently Amended): A solid-state image pickup apparatus, comprising:

a photodetecting section having a plurality of pixels which are two-dimensionally

arranged in M rows and N columns (M and N are integers of two or more) and each of which

includes a photodiode and a cell switch, and N lines L_N provided in accordance with the

respective columns of said pixels such that said associated photodiodes in said pixels that

constitute the nth column (n is an arbitrary integer of one or more but N or less) are respectively

connected to a line L_n via said cell switch corresponding to said associated photodiode:

an output section which accumulates an electric charge that flows in through the line L_n

into a readout circuit R_n and which outputs a voltage according to the amount of the accumulated

clectric charge from said readout circuit R_n via a switch SW_n, said output section being arranged

at a first-row side or an Mth-row side of said photodetecting section and including N readout

circuits R1 to RN and N switches SW1 to SWN;

a row selecting section which outputs having a first output terminal for outputting a row

selecting signal S_{A m} for an instruction on switching of said cell switches in said pixels that

constitute the mth row (m is an arbitrary integer of one or more but M or less) of said

photodetecting section, and a second output terminal for outputting a gate signal for shaping the

row selecting signal $S_{A,m}$, said row selecting section being arranged at a first-row side or an Mth-

row side of said photodetecting section;

a column selecting section that outputs a column selecting signal S_{B,n} for an instruction

on switching of said switch SWn in said output section, said column selecting section being

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arranged at a first-row side or an Mth-row side of said photodetecting section; and

[[a]] waveform shaping means for shaping, for each of the rows longer in distance from said row selecting section than a predetermined distance out of the M rows of said photodetecting section, a waveform of the row selecting signal $S_{A,m}$ outputted from said row selecting section and which inputs a shaped row selecting signal $S_{A,m}$ into said cell switches of said pixels that constitute the mth row of said photodetecting section,

wherein [[the]] <u>said</u> row selecting section is configured so as to be substantially parallel with [[the]] <u>said</u> column selecting section, and

wherein [[the]] said waveform shaping means W_{Lm} has a first input terminal for inputting the row selecting signal $S_{A,m}$ and a second input terminal for inputting the associated gate signal, and shapes the row selecting signal $S_{A,m}$ in accordance with a timing of the associated gate signal provided as an input signal in [[the]] said waveform shaping means W_{Lm} while a length of a gate signal line through which the associated gate signal is provided is shorter than a length of a row selecting signal line through which the row selecting signal $S_{A,m}$ to be shaped is provided is-longer than a length of a line through which the associated gate signal is provided, the gate signal line disposed outside said photodetecting section and having one end directly connected to the second output terminal of said row selecting section and the other end directly connected to the second input terminal of said waveform shaping means W_{Lm} , the row selecting signal line having a portion disposed between the adjacent columns in said photodetecting section and having one end directly connected to the first output terminal of said row selecting section and the other end directly connected to the first output terminal of said waveform shaping means W_{Lm} .

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Claim 2 (Original): A solid-state image pickup apparatus according to claim 1, wherein

said waveform shaping means shapes, for each of all rows of said photodetecting section, a

waveform of the row selecting signal $S_{A,m}$ outputted from said row selecting section, and inputs a

shaped row selecting signal S'A,m into said cell switches of said pixels that constitute the mth row

of said photodetecting section.

Claim 3 (Original): A solid-state image pickup apparatus according to claim 1, wherein

said waveform shaping means is arranged, for each row of said photodetecting section, at either

one end side of the row.

Claim 4 (Original): A solid-state image pickup apparatus according to claim 1, wherein

said waveform shaping means is arranged, for each row of said photodetecting section, at both

end sides of the row.

Claim 5 (Original): A solid-state image pickup apparatus according to claim 1, wherein

said waveform shaping means includes a logic circuit that is inputted with the row selecting

signal $S_{A,m}$ outputted from said row selecting section and that outputs a logic signal according to

a level of the inputted row selecting signal $\mathrm{S}_{A,m}$ as a waveform-shaped row selecting signal $\mathrm{S}^*_{A,m}$.

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